



OCEAN NETWORK EMERGENCY PHONE 1-800-OLIN 911

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THIS PRODUCT MAY BE CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD. (REFER TO THE OSHA CLASSIFICATION IN SEC. I.) THIS INFORMATION IS REQUIRED TO BE DISCLOSED FOR SAFETY IN THE WORKPLACE. THE EXPOSURE TO THE COMMUNITY, IF ANY, IS QUITE DIFFERENT.

1. PRODUCT IDENTIFICATION

REVISION NO : 4
REVISION DATE : 4/15/96
PRODUCT CODE : CPE00080#
FILE NUMBER : CPE00010.0006
PRODUCT NAME: HTH(R) CLARIFIER

SYNONYMS: None

CHEMICAL FAMILY: Cationic polymer

FORMULA: Not Applicable/Mixture

DESCRIPTION: Coagulant

OSHA HAZARD CLASSIFICATION: This product is not considered to be hazardous per 29 CFR 1910.1200.

II. COMPONENT DATA

PRODUCT COMPOSITION

DESCRIPTIVE NAME: Cationic polymer
CAS NUMBER: Supplier Proprietary
PERCENTAGE RANGE: 1-6%
HAZARDOUS PER 29 CFR 1910.1200: No
EXPOSURE STANDARDS: None Established

CAS or CHEMICAL NAME: Water
CAS NUMBER: 7732-18-5
PERCENTAGE RANGE: 94-99%
HAZARDOUS PER 29 CFR 1910.1200: No
EXPOSURE STANDARDS: None Established

III. PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES, AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER.

STORAGE CONDITIONS:

DO NOT STORE AT TEMPERATURES BELOW: 3.3 Deg.C (38 Deg.F)

PRODUCT STABILITY AND COMPATIBILITY

INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT: Refer to Section VII

IV. PHYSICAL DATA

APPEARANCE: Clear blue liquid

FREEZING POINT: -2.8-0 Deg.C (27-32 Deg.F)

BOILING POINT: >100 Deg.C (>212 Deg.F)

DECOMPOSITION TEMPERATURE: No Data

SPECIFIC GRAVITY: 1.00-1.033

DENSITY: 1.09 (g/ml)

pH: 6-8

VAPOR PRESSURE @ 25 DEG.C: Same as water

SOLUBILITY IN WATER: Completely soluble

VOLATILES, PERCENT BY VOLUME: >95

EVAPORATION RATE: 1 (water=1)

VAPOR DENSITY: Same as water

MOLECULAR WEIGHT: Not Applicable/Mixture

ODOR: None

COEFFICIENT OF OIL/WATER DISTRIBUTION: No Data

V. PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

PERSONAL PROTECTION FOR ROUTINE USE OF PRODUCT:

RESPIRATORY PROTECTION: Respiratory protection not normally needed.

VENTILATION: None beyond normal ventilation.

SKIN AND EYE PROTECTIVE EQUIPMENT: Use safety glasses with side shields.

EQUIPMENT SPECIFICATIONS:

RESPIRATOR TYPE: Not normally needed

PROTECTIVE CLOTHING TYPE (This includes: gloves, boots, apron,
protective suit); None required

VI. FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABILITY DATA:

FLAMMABLE: No

COMBUSTIBLE: No

PYROPHORIC: No

FLASH POINT: >93 Deg.C (>200 Deg.F)

AUTOIGNITION TEMPERATURE: Not Applicable

FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT
VOLUME IN AIR): Not Applicable



NFPA RATINGS:

Not Established

HMIS RATINGS:

Health: 0
Flammability: 0
Reactivity: 0
Personal Protection: A

EXTINGUISHING MEDIA:

Not Applicable—Choose extinguishing media suitable for surrounding materials.

FIRE FIGHTING TECHNIQUES AND COMMENTS: Use water to cool containers exposed to fire.

VII. REACTIVITY INFORMATION

CONDITIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE:

TEMPERATURES ABOVE: Stable at normal room temperature.

HAZARDOUS POLYMERIZATION: Will not occur

INCOMPATIBLE MATERIALS: Strong acids and bases, carbon steel, copper

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen chloride, ammonia, oxides of nitrogen

SUMMARY OF REACTIVITY:

OXIDIZER: No
PYROPHORIC: No
ORGANIC PEROXIDE: No
WATER REACTIVE: No

VIII. FIRST AID

EYES: Not an eye irritant. Washing any substance from the eye with water is a good safety practice.

SKIN: Not a skin irritant. Washing any substance off the skin with water is a good safety practice.

INGESTION: This product is not toxic by ingestion. Drink water to dilute.

INHALATION: Not a likely route of exposure.

IX. TOXICOLOGY AND HEALTH INFORMATION

ROUTES OF ABSORPTION

This product will not exert a significant adverse effect to health from any route of exposure.

WARNING STATEMENTS AND WARNING PROPERTIES

DO NOT TAKE INTERNALLY.

HUMAN THRESHOLD RESPONSE DATA

ODOR THRESHOLD: No Data

IRRITATION THRESHOLD: No Data

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH: The IDLH concentration has not been established for this product

SIGNS, SYMPTOMS, AND EFFECTS OF EXPOSURE

INHALATION:

ACUTE:

No significant adverse effects to health would be expected to occur from inhalation.

CHRONIC:

There are no known or reported effects from chronic exposure.

SKIN:

No significant adverse effects to health would be expected to occur from dermal contact.

EYE:

No significant adverse effects to health would be expected to occur from eye contact.

INGESTION:

ACUTE:

This product is considered practically nontoxic from oral ingestion.

There are no known or reported effects from acute ingestion.

CHRONIC:

There are no known or reported effects from chronic exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

There are no medical conditions known to be aggravated by exposure.

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY

There are no chemicals known to enhance the toxicity of the product.



ANIMAL TOXICITY

Acute Toxicity:

Inhalation LC 50: No Data
Dermal LD 50: > 2 g/kg. (rabbit)
Oral LD 50: > 5 g/kg. (rat)
Irritation: Not a skin or eye irritant

ACUTE TARGET ORGAN TOXICITY

There are no organs known to be damaged from exposure to this product.

Data indicates that this product will not produce an allergic skin reaction.

CHRONIC TARGET ORGAN TOXICITY

There are no known or reported effects from repeated exposure.

REPRODUCTIVE AND DEVELOPMENTAL TOXICITY

A teratology study in rabbits and a two-generation reproduction study in rats showed this product did not produce birth defects or affect reproduction.

CARCINOGENICITY

This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

MUTAGENICITY

This product is not known or reported to be mutagenic.
A similar product has been tested and was found to be negative for mutagenicity in the Ames assay.

AQUATIC TOXICITY

The following data was generated with 40% active ingredient:

Bluegill sunfish, 96 hr. LC50: 0.82-1.3 mg/l
Rainbow trout, 96 hr. LC50: 0.37 mg/l
Daphnia magna, 48 hr. LC50: 0.9 mg/l (in clear water)
Daphnia magna, 48 hr. LC50: 1.2-2.5 mg/l (in 50 ppm clay suspension)

X. TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT REGULATED AS A DOT HAZARDOUS MATERIAL.

XI. SPILL AND LEAKAGE PROCEDURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

REPORTABLE QUANTITY: Not Applicable (Per 40 CFR 302.4)

SPILL MITIGATION PROCEDURES:

Water Release - this material is heavier than water. This material is soluble in water.

Land Spill - Compatible absorbents: Saw dust, Sand, Clay soil, and Commercial absorbents.

SPILL RESIDUES: Dispose of per guidelines under Section XII, WASTE DISPOSAL.

PERSONAL PROTECTION FOR EMERGENCY SPILL AND FIRE-FIGHTING SITUATIONS:

In case of fire, use normal fire fighting equipment, including self-contained breathing apparatus (SCBA).

XII. WASTE DISPOSAL

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

As a nonhazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations by treatment in a wastewater treatment system.

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

XIII. ADDITIONAL REGULATORY STATUS INFORMATION

TOXIC SUBSTANCES CONTROL ACT: This substance is listed on the Toxic Substances Control Act Inventory.

SUPERFUND AMENDMENT AND REAUTHORIZATION ACT TITLE III:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH: None

PHYSICAL: None



EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP. A:
EXTREMELY HAZARDOUS SUBSTANCES - THRESHOLD PLANNING QUANTITY:
None Established
SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45:
None Established

XIV. ADDITIONAL INFORMATION

MSDS REVISION STATUS: All Sections (except X and XII) revised

XV. MAJOR REFERENCES

References are available upon request.

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. OLIN BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MATERIAL SAFETY DATA SHEET IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT OLIN AT THE PHONE NUMBER LISTED BELOW TO MAKE CERTAIN THAT THIS SHEET IS CURRENT.

OLIN MSDS CONTROL GROUP

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Phone Number: (800) 511-MSDS

OLIN CORPORATION SUBSIDIARIES AND AFFILIATED ENTITIES: ASAHI-OLIN LTD., BRIDGEPORT BRASS CORPORATION, OLIN AEROSPACE COMPANY, A.J. OSTER COMPANY, OLIN FABRICATED METAL PRODUCTS, INC., OLIN HUNT SPECIALTY PRODUCTS, INC., OLIN SPECIALTY METALS CORPORATION, GENERAL DEFENSE CORPORATION, NIACHLOR, PHYSICS INTERNATIONAL COMPANY, SUPERIOR POOL PRODUCTS, INC., ETOXYL, C.A., OCG MICROELECTRONIC MATERIALS, INC., OLIN ENGINEERED SYSTEMS, INC., YAMAHA-OLIN METAL CORPORATION, NORDESCLOR, S.A.